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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,901	03/31/2004	Paul Tucker	GP-221-00-US	4995

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PATENT DEPARTMENT - 53051
KILPATRICK STOCKTON LLP
1001 WEST FOURTH STREET
WINSTON-SALEM, NC 27101

EXAMINER

BELL, CORY C

ART UNIT	PAPER NUMBER
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2164

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/02/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/812,901

Applicant(s)

TUCKER ET AL.

Examiner

Cory C. Bell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


SAM RIMELL
PRIMARY EXAMINER

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-30 have been examined.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 23-30 are rejected under 35 U.S.C. 101 for the following reasons:

Claims 23-30 are rejected as the specification states "Embodiments of CRM for memories 108 and 156 include, but are not limited to, an electronic, optical, magnetic, or other storage or transmission device," and transmission type media (i.e. carrier waves) are not statutory.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 3, 5, 9, 23 - 25, and 28 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by US 20050222975, known hereafter as Nayak.

3. *As per independent Claims 1, 5 and 23*, Nayak teaches the limitations as follows:

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receiving a first search query having a first content comprising a plurality of components(Para 34);

rewriting the first search query into a modified search query;

mapping the first search query to the modified search query in a cache memory; {Para 46 of
Nayak, beging on the third line from the bottom of the first column "After a query is expanded, the expansion component can provide the expanded expression to a shared memory 1014. The query expander client component 1012 can retrieve the expression from the shared memory 1014 and load it into keyword cache 1016, which can be utilized by execution engine component 770 to query the compressed index 760."}

receiving a second search query having a second content',

determining whether at least a portion of the second content is substantially

identical to the first content;

responsive to the at least one portion of the second content being substantially

identical to the first content, substituting the modified search query for the at least one

portion of the second content to form a modified second search query; and

issuing a search of the modified second search query having the substituted

modified search query to return one or more search results as responsive to the received

second search query.{Para 46 of Nayak, "The optimized query can then be

passed to execution engine component 770 for execution. The

query can be executed at that time or alternatively the query

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can be expanded first. Query expander client component 1012 can receive the index query string from the execution engine component 770. Subsequently, the expander client component 1012 can check to determine whether an expanded query is located in the keyword cache 1016. Keyword cache 1016 provides a very fast memory that the execution engine component 770 can utilize. If the expanded query is located in the keyword cache the execution engine component 770 can simply retrieve the expanded query from the cache."}

4. *As per dependent Claims 2 and 24, the limitation are taught as follows:*

See the claims 1 and 23 rejection above.

5. *As per dependent Claims 3 and 25, the limitations are taught as follows:*

The method of claim 1, further comprising:

responsive to the second content not comprising any portion that is substantially

identical to the first content, issuing a search of the received second search query to the

backend search system. {Para 46 shows that the query is always eventually executed on the backend search system}

6. *As per dependent Claim 9 and 28, the limitations are taught as follows:*

See Claim 1 rejection above.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-10, 20, and 22-30 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by US 6006225, known hereafter as Bowman.

7. *As per independent Claims 1, 5 and 23*, Bowman teaches the limitations as follows:

receiving a first search query having a first content, comprising a plurality of components ;

rewriting the first search query into a modified search query; {Col 13 line 65-col 14 line 15}

mapping the first search query to the modified search query in a cache memory; {Col 8 lines 44-

48 Teaches logging all queries, which include those which have been rewritten, col 8 lines 15-19

teach generating the mapping and storing it in a query correlation table, and col 5 line 37-38

teach the correlation table being stored in a cache memory}

receiving a second search query having a second content',

determining whether at least a portion of the second content is substantially

identical to the first content;

responsive to the at least one portion of the second content being substantially

identical to the first content, substituting the modified search query for the at least one

portion of the second content to form a modified second search query; and

issuing a search of the modified second search query having the substituted

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modified search query to return one or more search results as responsive to the received second search query. {Col 6 lines 19-31 and Figure 1 item 133 is the backend data system}

8. *As per dependent Claims 2 and 24*, Bowman teaches the limitations as follows:

See the claims 1 and 23 rejection above.

9. *As per dependent Claims 3 and 25*, Bowman teaches the limitations as follows:

The method of claim 1, further comprising:

responsive to the second content not comprising any portion that is substantially identical to the first content, issuing a search of the received second search query to the backend search system. {Col 5 line 61- Col 6 line 2}

10. *As per dependent Claims 4 and 26*, Bowman teaches the limitations as follows:

The method of claim 1, wherein the cache memory comprises a look-up table for the mapping.

{Abstract, or Col 2 lines 47-50}

11. *As per dependent Claim 6*, Bowman teaches the limitations as follows:

The method of claim 5, wherein the backend data system is physically

apart from the cache memory and comprises one or more databases having data to be searched.{Figure 1}

12. *As per dependent Claim 7*, Bowman teaches the limitations as follows:

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See Claims 4 and 6 rejections.

13. *As per dependent Claims 8 and 27, Bowman teaches the limitations as follows:*

The method of claim 1, wherein the step of mapping is performed offline
prior to the step of receiving the second search query; and the step of substituting is
performed online upon receiving the second search query. {Col 7 lines 60-65, the substituting
step must inherently take place online in order for the query to be processed when it is
submitted}

14. *As per dependent Claim 9 and 28, Bowman teaches the limitations as follows:*

The method of claim 1, wherein the step of rewriting the first search
query into the modified search query comprises:
determining that the first search query is frequently received{Col 2 line37-40, and Col 6 lines
34-37
issuing the first search query to the backend data system to find information
related to the first search query;
determining additional content for the first search query based on the related
information; and
rewriting the first search query into a modified search query having the first
content and the additional content. {Col 13 line 63 – Col 14 line 12}

15. *As per dependent Claim 10 and 29, Bowman teaches the limitations as follows:*

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determining a more common or popular phrase or term for the first content of the first search query; and
rewriting the first search query into the modeled search query having the more common or popular phrase or term in place of the first content{Col 7 lines 45-50}.

16. *As per dependent Claim 20*, Bowman teaches the limitations as follows:

See Col 5 line 37.

17. *As per dependent Claim 22 and 30*, Bowman teaches the limitations as follows:

See the Claims 9 and 28 rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claims 11-19, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6006225, known hereafter as Bowman or US 20050222975, known hereafter as Nayak.

19. Claims 11-19 are rejected as Bowman teaches the claims upon which these claims are dependant, as well as teaching the system being implemented on one or more servers in col 5 lines 34-45, but fails to expressly disclose how the system could be implemented on disparate

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servers. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to integrate or separate the system into any combination of servers containing the different steps and components of the system. This is supported by *In re Larson*, 340 F.2d 965, 968, 144 USPQ 347, 349 (CCPA 1965), for making the components integral, and *In re Dulberg*, 289 F.2d 522, 523, 129 USPQ 348, 349 (CCPA 1961), for making the components separable. It would also have been obvious to one of ordinary skill in the art to make these separable to decrease the amount of load on a single server, and to make them integral to decrease the amount of delay in communications.

20. Claim 21 is rejected as although Bowman fails to expressly disclose the cache being on a disk storage. The examiner takes official notice that caches on disk storage were well known in the art at the time of the invention. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention to include this feature in cases where the size of the cache was large and would be expensive to implement on memory chips.

Response to Arguments

Any rejections not repeated have been withdrawn.

Applicant's arguments filed March 31, 2005 have been fully considered but they are not persuasive. The remaining 101 rejection stands as carrier wave are not statutory, as they do not fall into one of the statutory classes.

Applicants arguments with respect to the art applied under 35 USC 102 are not persuasive, applicant cites portions of the applications unrelated to the limitations being

discussed, Nayak clearly teaches having multiple keywords as mapped above. The cited portion of Bowman did in fact teach the limitation being argued the issuing and return of the results, as this is part of refining a search to aid in the enhanced discovery of relative information; however, the cited portion was not considered in the applicants arguments.

Last, applicant argued that the 103 was improper because Bowman and Nayak failed to teach all of the limitations, yet the applicant did not argue any limitation that he felt was not taught by both. Second, applicant argued separate limitation for each reference, thus even if applicant's arguments were persuasive every limitation would still be taught by the combination.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cory C. Bell whose telephone number is (571) 272 2736. The examiner can normally be reached on m-f 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Rones can be reached on (571) 272 4085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


SAM RIMELL
PRIMARY EXAMINER